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10/770,616	02/02/2004	Wolfgang Eis	AMB-131-01	2302
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LERNER GREENBERG STEMER LLP			DEGHAN, QUEENIE S	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/770,616

Applicant(s)

EIS ET AL.

Examiner

Queenie Dehghan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6,9 and 11-42 is/are pending in the application.
- 4a) Of the above claim(s) 27-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,9 and 11-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 9, 14, 16-22, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Fulk et al. (3,847,579). Regarding claims 1-2, Fulk et al. disclose a device for making a plurality of fibers comprising:

a. A multifiber drawing machine having a drawing installation configured for a drawing a plurality of fibers at a constant speed to form a bundle (col. 5 lines 15-36, figure 15, col. 1 lines 19-20),

b. And a take-up winder with a take-up spool and a compensating device capable of compensating differences in speeds between the drawing installation and the take-up spool (col. 5 lines 15-36, figure 15),

c. wherein the compensating device comprising a speed-change compensating device capable of compensating a change in speed in the fiber bundle due to a changing wound-up radius (col. 8 lines 26-44),

d. wherein the speed compensating device has a dancing arm fastened at a mounting point (where 210 and 220 meets, fig. 7), and a deflection roller (54) that is rotatably fastened to one side of the dancing arm and is pivotable about the

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mounting point in a plane substantially parallel to a plane of rotation of the take-up spool (col. 9 lines 20-36, col. 10 lines 54-59),

e. and the deflection roller on the dancing arm can oscillate separately with respect to the pivoting movement by force of the spring (58) (note the oscillating arrow in figure 7, col. 9 lines 37-40).

3. Regarding claim 3, Fulk et al. discloses a take-up winder with a fiber guiding unit (col. 7 lines 21-42).

4. Regarding claim 9, Fulk et al. discloses in figures 1 and 15 the deflection roller with an axis of rotation parallel to the axis of rotation of the take up spool.

5. Regarding claim 14, Fulk et al. disclose an angular resolver, wherein the dancing arm is assigned to the angular resolver at the mounting point, and a speed controller connected to the angular resolver for controlling the rate of the take-up spool (col. 9 lines 50-65).

6. Regarding claims 16-21, Fulk et al. disclose a compensating force, such as a hydraulic cylinder, that is capable of adjusting the dancing arm to an equilibrium or neutral position and also capable of setting a tension in the fiber bundle (col. 11 lines 1-50, col. 12 lines 50-56, col. 3 lines 34-36).

7. Regarding claim 22, Fulk et al. disclose a take-up spool is fastened as an exchangeable take-up spool (col. 14 lines 25-27, 50-52).

8. Regarding claim 26, Fulk et al. disclose a drawing installation capable of producing a plurality of individual multicomponent fibers (figures 1, 2 & 15).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fulk et al. (3,847,579), as applied to claim 3 above, in view of Collaro (2005/0126227). Fulk et al. disclose a fiber guiding unit with a controllable excursion mechanism (82) that acts on a fiber guide (88) for laying the fiber bundle on the spool (col. 7 lines 21-43). However, Fulk et al. fail to disclose a guiding roller. Collaro teaches a device for drawing and winding fiber onto a reel, comprising a guiding roller for guiding the fiber onto the reel ([0097], figure 4). Collaro also mentions that any other pulleys or guiding elements of another type may be used ([0099]). It would have been obvious to one of ordinary skill

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in the art at the time the invention was made to utilize the guiding roller of Collaro in the fiber guiding unit of Fulk et al. because Collaro has demonstrated that it is know in the art to do so and because it would allow for smooth guiding means for the fiber.

12. Claims 5-6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fulk et al. (3,847,579) in view of Collaro (2005/0126227), in further view of Hendrix et al. (4,130,248). Regarding claims 5 and 6, although Fulk et al. and Collaro both disclose an excursion mechanism for traverse of the fiber guiding unit and a guiding roller, as similar discussed above in claim 4, they fail to disclose a layer compensating device. Hendrix et al. teach a take-up winder (42) comprising a layer-compensating device, which is capable of adapting to a winding condition based on a change in a wound-up radius on the spool. Furthermore, the layer compensating device has a controllable excursion mechanism capable of controlling traveling of the fiber guide in a direction radial with respect to the axis of rotation of the spool, based on the number of layers on the spool (col. 3 lines 48-64, col. 4 lines 7-29). It would have been obvious to one of ordinary skill in the art a the time the invention was made to utilize the layer compensating device with the excursion mechanism in the take-up winder of Fulk et al. and Collaro in order to allow for the fiber guiding unit to accommodate for an increase radius of the wound spool during winding operations.

13. Regarding claim 15, Fulk et al. disclose a central data processing unit (controller) capable of controlling the compensating device for differences in speeds (col. 9 lines 1-12, 59-64).

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14. Claims 11-13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fulk et al. (3,847,579), as applied to claim 1 above, in view of Canfield (3,650,717). Fulk et al. disclose a speed-change compensating device with a dancing arm with a deflection roller, wherein the dancing arm is fastened at a mounting point, as mentioned above. Furthermore, Fulk et al. indicates oscillating the dancing arm in a clockwise motion, as discussed above (col. 9 lines 37-38), but fail to disclose an elastic dancing arm. Canfield also teaches a speed-change compensating device (col. 7 lines 68-72), with a dancing arm (50) fastened at a mounting point (53) and a deflection roller rotatably mounted on the dancing arm and is flexible about the mounting point in a plane parallel to the plane of rotation of the spool (col. 3 lines 45-75). Furthermore, Canfield teaches in figures 1 and 3 a deflection roller and take-up spool with axes of rotation that are parallel to one another. Also, Canfield teaches a dancing arm that is elastic, with a long and thin shape, and plastic, allowing for the deflection roller to have oscillating capability (col. 4 lines 1-13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the variation in the a speed-change compensating device, especially the use of an elastic material, as suggested by Canfield in the apparatus of Fulk et al, in order to provide for proper tension on the fiber and a dancing arm that can withstand the strain due to the tension.

15. Claim 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fulk et al. (3,847,579), as applied to claim 3 above, in view of Stream et al. (2,622,810). Fulk et al. disclose a take-up spool that is capable of being exchanged when full (col. 14 lines 25-27, 50-52). Stream teaches a winding apparatus comprising a replacement

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spool located axially adjacent the take-up spool, a fiber guiding unit traveling over the replacement spool for laying the fiber bundle on the replacement spool when the take-up spool is full, and a removable take-up spool (col. 6, figures 8-11). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize such a replacement spool arrangement of Stream et al. in the apparatus of Fulk et al. in order to facilitate easy and continuous winding of the fiber bundle. Furthermore, Fulk et al. disclose a central data processing unit (controller) capable of controlling a rotationally speed of the replacement spool via the compensating device (col. 9 lines 59-64). It would have been obvious to one ordinary skill in the art at the time the invention was made to expect central data processing unit to control the rotational speed of the spool (replacement or take-up) via any desired control loop (via closed-loop or open-loop), especially since Fulk et al. has disclosed its capability to control the spooling speed.

### ***Response to Arguments***

1. Applicant's arguments filed September 21, 2007 have been fully considered but they are not persuasive. The applicant argues that Fulk fail to disclose an oscillating movement of the deflection roller that is separate from the pivoting movement of the deflection roller. The Examiner disagrees. As similarly discussed in the rejection above, Fulk discloses in figure 7 a deflection roller that oscillates in the direction of the arrow about point 182 from the force exert by 58 and additionally pivots about the intersection of segments 220 and 210, wherein the pivoting movement is induced by the cylinder 200.



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2. The applicant also argues that Canfield fails to teach a flexible arm that actually imparts a tension on the fiber or that such a leg could be utilized to withstand a strain from the tension. Although the Examiner agrees that Canfield does not teach a separate pivoting and oscillating movement, Canfield was used primarily to teach a flexible arm. The prior art of Canfield teaches a flexible arm that allows for an oscillating motion of the deflection roller on the arm. Although the flexible arm of Canfield is used as a tension sensor, it does provide some tension on the strand in order for it to properly measure the tension within the strand. Also, Canfield does recognize that a strain is placed on the device and a flexible arm would be able to withstand such strain (col. 4 lines 5-13). The applicant also alleges that the graphite shoe does not qualify as a deflection roller. Canfield notes that the shoe can be rotatably mounted, which allows to be capable of functioning as a deflection roller (col. 3 lines 74-75).

### ***Conclusion***

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Queenie Dehghan whose telephone number is (571)272-8209. The examiner can normally be reached on Monday through Friday 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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